



Alert 600

High Power Electronic Siren

Installation Guide



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Warning



If incorrectly used, this equipment can cause severe injury. Those who use and maintain the equipment should be trained in its proper use, warned of its dangers, and should read the manuals before attempting to set up, operate, adjust or service the equipment. Keep this manual for future reference.

Important Safety Information

System Planning

Proper planning is the cornerstone to an effective warning system. The Federal Emergency Management Agency (FEMA) publishes the “Outdoor Warning Guide” CPG 1-17, which should be used in planning your system. In addition, you should recognize and understand the following items:

- Outdoor warnings sirens and equipment are not intended to be heard indoors. Conversely indoor devices are not intended to cover outdoor environments. All devices have specific purposes and distances that they can be considered effective. Proper placement and selection of the correct equipment is necessary to cover a desired area. Refer to the FEMA guide for placement guidelines.
- Training is necessary to ensure those responsible can correctly activate the system. It is also necessary that everyone understand the purpose of the warning system and the protective actions they need to take when the system is activated. Periodic tests can serve to accomplish the training for the operators, in addition to demonstrating the various signals to the public.
- All warning systems must have contingency plans in case equipment problems or operator errors interfere with its performance. Just as with the primary warning system, the contingency plans should be periodically tested to make sure those responsible know how to implement them and the necessary response from the public is achieved.

Important Safety Information

Installation & Service Precautions



ⓘ Electrocuting, severe personal injury and damage to equipment can occur during installation or servicing this equipment. All electrical work should be performed by, or under the supervision of an experienced electrician and in accordance with all applicable electrical, fire, building and safety codes.



ⓘ This equipment can start at any time from local controls, automatic timers, radio remote, commands from a computer and many other sources. The sound output can cause hearing damage, while other attached equipment can cause personal injury when they engage. Whenever working in or around the equipment you must assume it could activate at any moment, and take appropriate precautions to protect yourself and others. You should completely disable the equipment before working on or in close proximity to any part of it.

ⓘ You must test the system and equipment to insure it is operating correctly after the installation, as well as after any work has been performed.

System Operation

ⓘ Training is necessary to ensure those responsible can correctly activate the system. It is also necessary that everyone understand the purpose of the siren and the protective actions they need to take when the system is activated. Periodic tests can serve to accomplish the training for the operators, in addition to demonstrating the various signals to the public.

ⓘ You must carefully read and completely understand all the information about the system including its abilities and its limitations. Since no warning system is infallible, you must have contingency plans for warning, in the event the primary systems do not perform as expected, for any reason.

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Alert-600 Hardware

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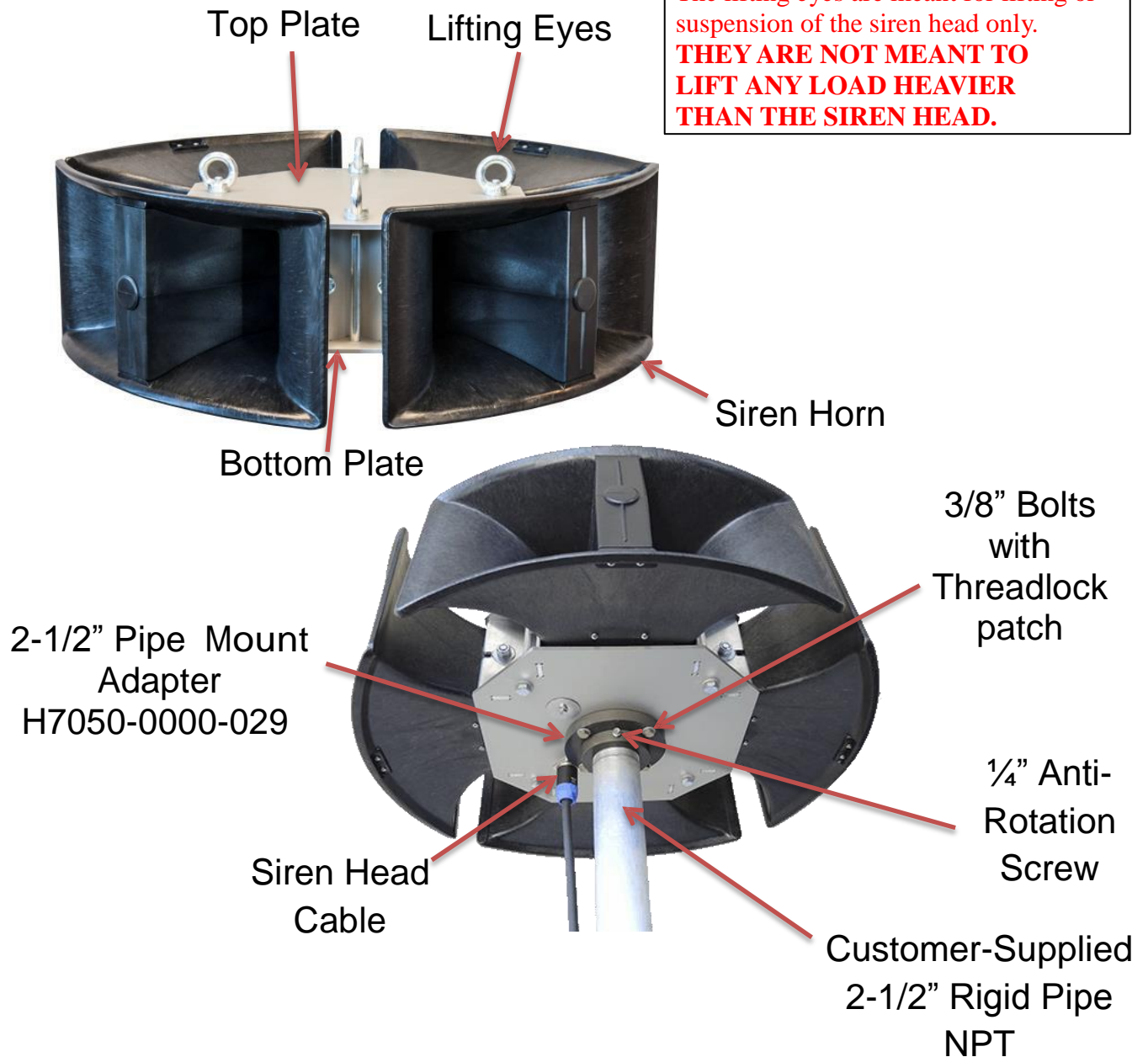
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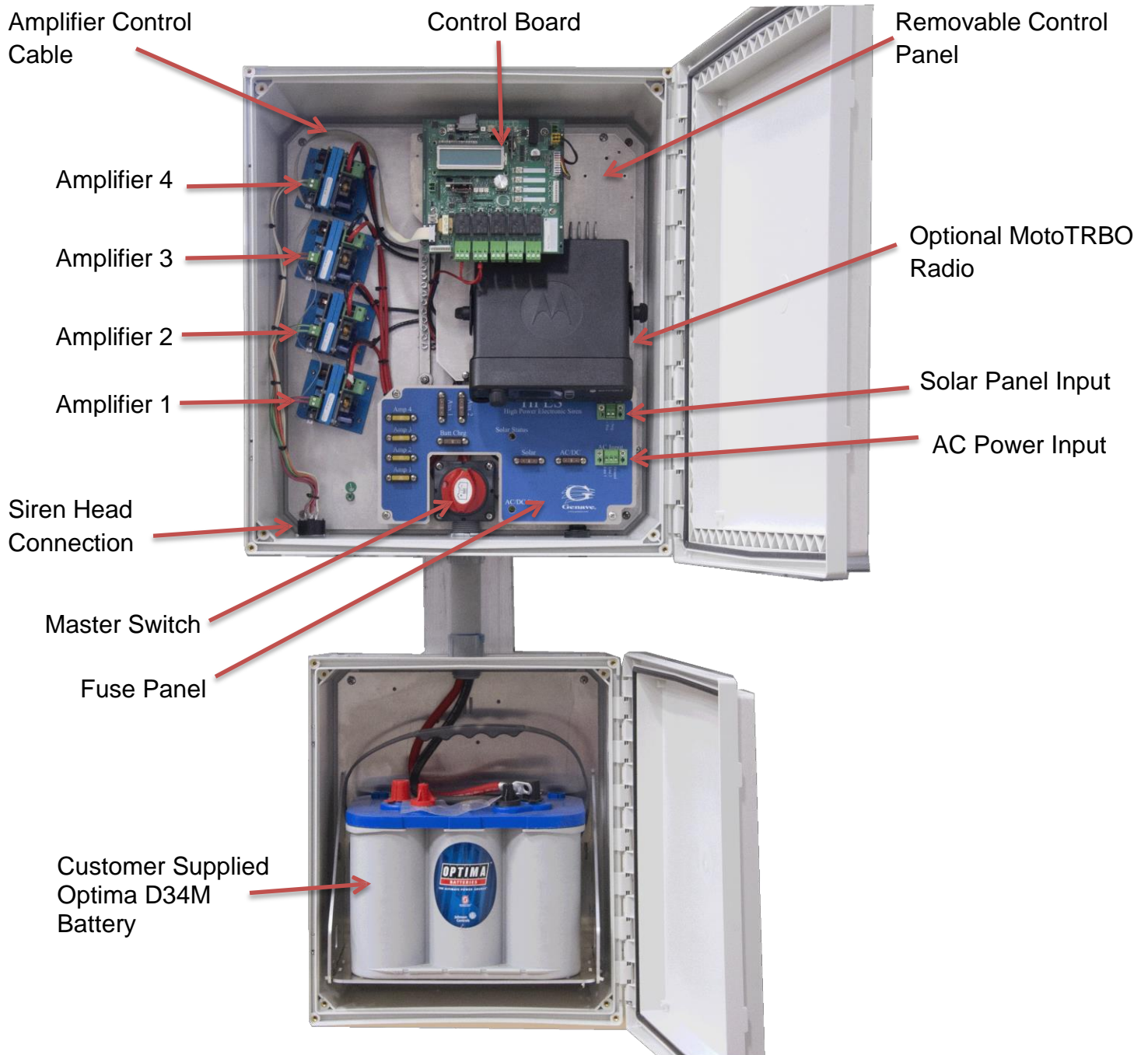
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Product Overview

Siren Head Overview



Control Cabinet Overview

Installation

Quick Installation Outline

Siren Head mounting to a pipe:

- 1) The 2-1/2" NPT threaded pipe must be secured in a way that it can withstand a lateral wind force of 104lbs at 100 mph.
- 2) Thread the Pipe Mount Adapter (H7050-0000-029) onto the end of the 2-1/2" pipe. The end of the pipe should not protrude past the top of the adapter. Tighten the Anti-Rotation Screw on the flange to lock it securely onto the pipe.
- 3) Lower the siren head onto the pipe mount adapter and secure the two together with the supplied 3/8" x 2" bolts. Tighten the bolts to 30ft*lbs.
- 4) Connect the siren head cable to the siren head and secure the cable to keep it from flexing in the wind. The connector has an active latching mechanism to keep it from decoupling. When installing the connector, push it all the way into the receiver and turn clockwise. You will hear a slight click as the lock engages. To disconnect the cable, pull down on the silver locking tab, twist Counter-clockwise and pull the connector out of the receiver.
- 5) Ground the pipe to a solid earth ground per NEMA and local specifications.

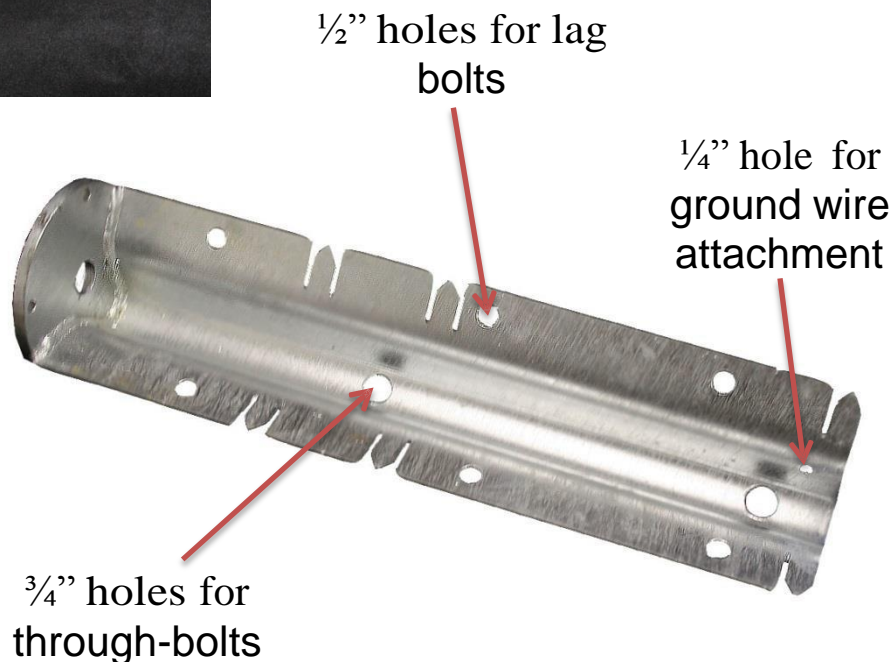


Siren Head mounting to a wood pole

- 1) Mount the Wood Pole Mount Adapter (H7050-0000-028) to the wood pole with 6 ½" x 5" lag bolts. The pole adapter needs to clear the top of the pole by 2" for the next step. Alternatively, the mount can be attached to the pole with ¾" Through-bolts.
- 2) Lower the siren head onto the pole mount adapter and secure the two together with the supplied 3/8" x 2" bolts. Tighten the bolts to 30ft*lbs.
- 3) Connect the siren head cable to the siren head and secure the cable to keep it from flexing in the wind. The connector has an active latching mechanism to keep it from decoupling. When installing the connector, push it all the way into the receiver and turn clockwise. You will hear a slight click as the lock engages. To disconnect the cable, pull down on the silver locking tab, twist Counter-clockwise and pull the connector out of the receiver.
- 4) Ground the pole mount adapter to a solid earth ground per NEMA and local specifications.

Wood Pole Mount

H7050-0000-028



Siren Head mounting from a ceiling

- 1) Suspend the siren head from the 4 lifting eyes with chain or wire rope and hardware of sufficient size and strength. The siren head weighs approximately 80lbs as shipped with 4 horns.
- 2) If the installation requires the siren head connection to come out of the top of the siren, untighten and flip over all 4 of the lifting eyes so that the bolt heads are on the top of the siren. Make certain not to do more than 1 bolt at a time.
- 3) Connect the siren head cable to the siren head and secure the cable. The connector has an active latching mechanism to keep it from decoupling. When installing the connector, push it all the way into the receiver and turn clockwise. You will hear a slight click as the lock engages. To disconnect the cable, pull down on the silver locking tab, twist Counter-clockwise and pull the connector out of the receiver.
- 4) Ground the siren head per NEMA and local specifications.



Control Cabinet mounting to pipe, pole or wall

The control cabinet's spline has the capability for mounting to a Pipe (Diameter of 2-1/2 or larger) a Wood pole or a Wall. The cabinet with battery installed weighs approximately 120 lbs.

When securing the controls to a steel pole, use 3/4" stainless strapping (We recommend Band-it™ products for strapping materials). The best method for strapping to a steel pole is 1 strap at the top of the channel, 1 strap in the middle and 1 strap at the bottom of the channel.

It is important to keep the enclosures flat and not allow the boxes and spline to twist. The door gasket will not completely seal if there is a twist to an enclosure or the spline.

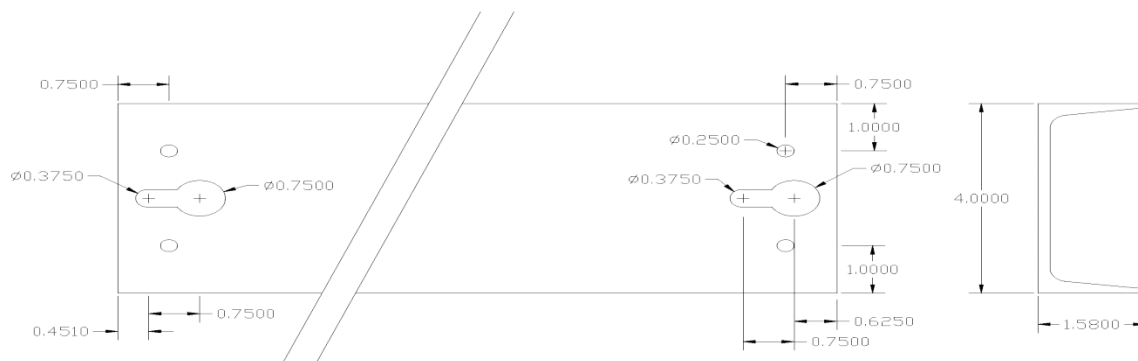
Mounting to a Pipe or Steel Pole

- 1) Place a worm gear clamp or pipe clamp around the pipe where the bottom of the spline will be. This clamp will take up some of the weight of the control cabinet and keep the other clamps from slipping.
- 2) Use stainless steel banding or heavy duty worm gear clamps to secure the spline directly to the pole.

Mounting to a Wood Pole or Wall

- 1) Use either 1/2" lags or bolts and secure the spline to the pole or wall.

**Alert-600 Control Cabinet Spline
Overall Length = 42"**



Electronics Enclosure

Enclosure Penetrations

When making connections to the enclosure, do not drill through the top or sides of the box. Make all connections through the bottom of the enclosure to maintain at least a **NEMA 3R** rating. The control cabinet (top enclosure) is shipped from the factory with holes pre-drilled for AC power and solar power cables. The holes are sized for a ½" knockout. If the unit has been ordered with an external antenna, a RF connector will protrude from the bottom of the enclosure.



AC Power Connections

Connect 100VAC up to 240VAC to Line1 and Line2 of the AC Input connector. Since the inputs are isolated, it is not important which input is hot and which one is neutral. Connect a supply ground wire to the Ground input. The ground input is bonded to the backplane.

The connector can accept up to a 12 AWG (2.5mm) diameter wire.



Solar Power Connections

Connect a solar panel directly to the Solar Input Connector. Polarity is important, so make certain that the positive and negative wires from the solar panel are in their correct spots on the connector.

The connector can accept up to a 12 AWG (2.5mm) diameter wire.



Earth Ground

The enclosure of the Alert 600 is polycarbonate and is electrically isolated from the mounting spline. An earth ground bonding point is provided on the backplane for the installer to bond the backplane to an earth ground point or to equipment ground. The installer will have to drill an appropriate size hole in the bottom of the enclosure.

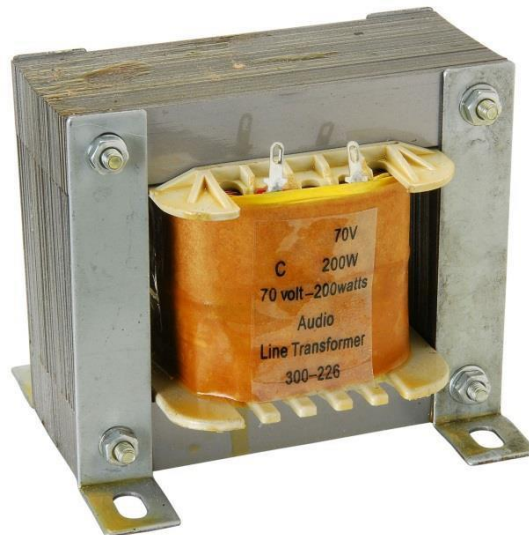


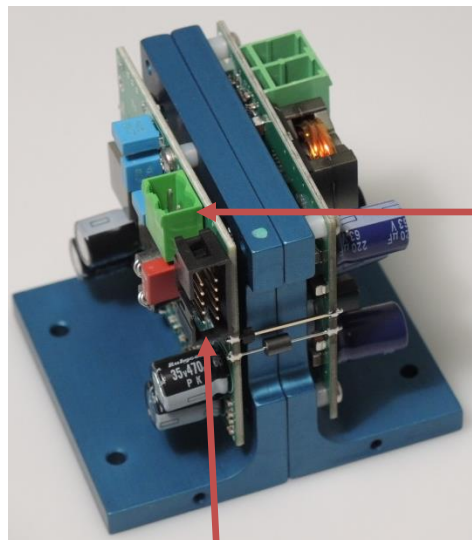
Remote Input Connections

If the siren is to be activated with a push button or from another piece of equipment, the remote inputs on the control board need to be connected to the equipment. Please refer to the RXC-3000 hardware manual (9000-0000-040) or RXC-3080 hardware manual (9000-0000-042) for instructions on how to connect the remote activation inputs to switches or equipment.

Amplifier Output Connections to 70V Transformers

If the output of the amplifier is to be connected to a 70 Volt transformer, disconnect the output leads from the amplifier and connect your own wiring to the input of the matching transformer. The amplifier has the capability to produce 160 watts of audio power at 8 Ohms of impedance.



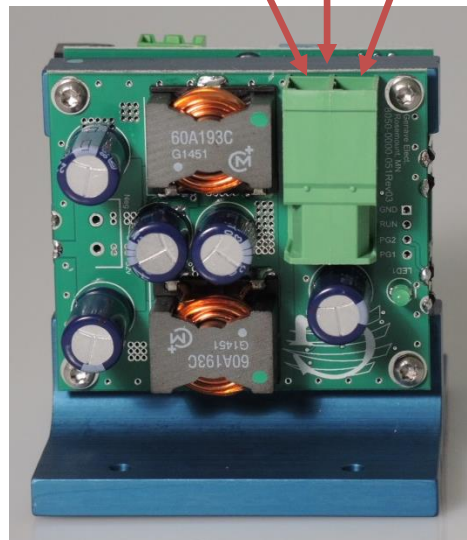
Amplifier Inputs

Input / Control

Output 39V_{rms} max**NEVER** Connect
to GNDDC Input 12 to 36 V_{DC}

POS

NEG

*Fuses*

The fuses used in the Alert 600 are ATO type. Replace a blown fuse with a fuse of the same size.



Battery Enclosure

Battery Type

Use only the Optima D34M (SC34DM) battery in the Alert 600 siren controls. This is a spiral wound, AGM sealed battery that has a very high power density and will not spill.



Transporting of Battery

DO NOT transport the controls with a battery installed. The cabinet is not designed for a battery to be installed during transport.

Battery Connections

When connecting the battery, wear protective eye and face shielding and make certain that the Master Switch is in the OFF position. Make the Positive connection first, followed by the Negative connection.

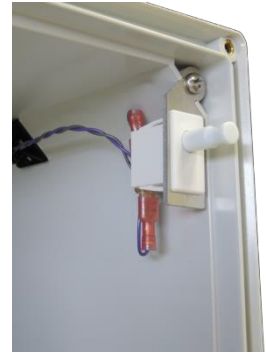




Miscellaneous

Door Switch

The ALERT controls can be equipped with an integrated door switch. When the door is open, the final amplifiers are muted and no sound can be produced. Make certain you wear ear protection before engaging the switch. To turn power on with door open, pull on the door switch plunger.



Driver Replacement

If a driver unit requires repair in the field, loosen the nuts on either side of the horn. Gently pull the horn and wires. Disconnect the wires and then unscrew the driver from the horn. When you reassemble the driver to the horn, make sure that the small drain hole on the driver is facing downwards and also that the drain hole in the driver cover is facing downwards. The reason for this is so that driving rains are sent straight out of the horn and cannot damage the driver unit.



Schematic

